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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,278	03/16/2001	Kazuki Sato	108964	4975

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EXAMINER	
TUGBANG, ANTHONY D	
ART UNIT	PAPER NUMBER
3729	10

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

HCT

Office Action Summary	Application No. 09/809,278	Applicant(s) SATO ET AL.	
	Examiner Dexter Tugbang	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *1-5,13-16 and 24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-12,17-23 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the invention of Group II in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the search for the invention of Group II would encompass a search for the invention of Group I. This is not found persuasive because the invention of Groups I and II belong to two completely different statutory classes of inventions, each having completely different lines of patentability. The searches for both Groups of inventions would also be non-coextensive, which would place a burden on the examiner.

Accordingly, the requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-5, 13-16 and 24 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8.

Specification

3. The abstract of the disclosure is objected to because the abstract is not drawn to the claimed invention, i.e. method. Correction is required. See MPEP § 608.01(b).

4. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A Method of Manufacturing a Magnetoresistive element Substructure.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 7 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In each of Claims 7 and 18, the recitation of "a magnetoresistive element" (last line of each claim) is unclear if this is referring to the previous recitation of "a magnetoresistive element" (lines 2-3 of Claim 6 and line 2 of Claim 17). How many magnetoresistive elements are there?

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 6, 7, 9-12, 17, 18, 20-23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang et al 5,271,802.

Regarding Claims 6 and 17, Chang discloses a method of manufacturing a magnetoresistive device substructure comprising: forming a magnetoresistive element (head element 20 on the far left in Fig. 1) and an indicator (anyone of the head elements 20 not on the far left in Fig. 20) having a shape similar to the magnetoresistive element located in a specific position spaced from the magnetoresistive element; and forming a soft magnetic layer in a specific position referring to the position of the indicator (see col. 3, lines 18-20).

Regarding Claims 7 and 18, the claimed "indicator", which is read as anyone of the head elements 20 (in Fig. 1) not on the far left, can be said to be "dummy element" such that during manufacture of the indicator, the indicator does not function as a magnetoresistive element since the magnetoresistive element is not in operation in a recording medium.

Regarding Claims 9-11 and 20-22, Chang further teaches forming an overcoat layer 26 covering the soft magnetic layer 20, forming at least one opening in the overcoat layer (shown in Fig. 4C) by reactive ion etching (see col. 6, lines 14+), and forming a film 24 capable of stopping reactive ion etching on the indicator 20 prior to forming the overcoat layer 26.

Regarding Claims 12 and 23, Chang further teaches that indicator 20 is divided to fabricate more than one magnetoresistive device (see col. 4, lines 19-20).

Regarding Claim 25, the claimed "first patterned thin film" is read as the head element 20 on the far left in Fig. 1.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al in view of Simon et al 3,787,964.

Chang, as relied upon above, teaches the claimed manufacturing method including forming multiple magnetic layers in which at least one magnetic layer can be read as a soft magnetic layer and another magnetic layer can be read as a dummy layer (discussed at col. 3, lines 15-20). However, Chang does not mention that the soft magnetic layer and dummy magnetic layer can be formed at the same time.

Simon teaches that multiple magnetic layers can be formed simultaneously through deposition to produce a vast quantity of magnetic heads (see col. 5, lines 6-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the soft magnetic and dummy layers of Chang at the same time, as taught by Simon, to positively manufacture a vast quantity of magnetic heads.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dexter Tugbang whose telephone number is 703-308-7599. The examiner can normally be reached on Monday - Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3590 for regular communications and 703-305-3588 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

Dexter Tugbang
Examiner
Art Unit 3729

adt
December 29, 2002